

G. SEQUENCE LISTING

5 (1) GENERAL INFORMATION

(i) APPLICANT: Darrell Anderson, Nabil Hanna, John Leonard,
10 Roland Newman and Mitchell Reff and William H.
Rastetter

(ii) TITLE OF INVENTION: THERAPEUTIC APPLICATION OF
15 CHIMERIC AND RADIOLABELED
ANTIBODIES TO HUMAN B
LYMPHOCYTE RESTRICTED
DIFFERENTIATION ANTIGEN FOR
TREATMENT OF B CELL LYMPHOMA

(iii) NUMBER OF SEQUENCES: 8

(iv) CORRESPONDING ADDRESS:

(A) ADDRESSEE: IDEC Pharmaceuticals Corporation
(B) STREET: 11011 Torreyana Road
(C) CITY: San Diego
(D) STATE: California
(E) COUNTRY: USA
(F) ZIP: 92121

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb
(B) COMPUTER: Macintosh
(C) OPERATING SYSTEM: MS.DOS
(D) SOFTWARE: Microsoft Word 5.0

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER:
(B) FILING DATE:
(C) CLASSIFICATION:

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Burgoon, Richard P. Jr.
(B) REGISTRATION NUMBER: 34,787
(C) REFERENCE/DOCKET NUMBER:

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (619) 550-8500
(B) TELEFAX: (619) 550-8750

(2) INFORMATION FOR SEQ ID NO: 1:

5 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8540 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: circular

10 (ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: yes

15 (iv) ANTI-SENSE: no

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

20 GACGTCCGGG CCGCTCTAGG CCTCCAAAAA AGCCTCCTCA CTACTCTGG AATAGCTCAG 60
AGGCCGAGGC GGCCTCGGCC TCTGCATAAA TAAAAAAAAT TAGTCAGCCA TGATGGGGC 120
GGAGAATGGG CGGAACCTGGG CGGAGTTAGG GGCGGGATGG CGCGAGTTAG GGGCGGGACT 180
25 ATGGTTGCTG ACTAATTGAG ATGCATGCTT TGCACTACTTC TGCTGCTGG GGAGCCTGGG 240
GACTTTCCAC ACCTGGTTGC TGACTAATTG AGATGCATGC TTTGCATACT TCTGCTGCT 300
30 GGGGAGCCTG GGGACTTCC ACACCTAAC TGACACACAT TCCACAGAAT TAATCCCT 360
AGTTATAAT AGTAATCAAT TACGGGGTCA TTAGTCATA GCCCATATAT GGAGTCCGC 420
GTTACATAAC TTACCGTAA TGCCCGCCT GGCTGACCGC CCAACGACCC CGGCCCCATTG 480
35 ACGTCAATAA TGACGTATGT TCCCATAGTA ACGCCAATAG GGACTTTCCA TTGACGTCAA 540
TGGGTGGACT ATTAACGGTA AACTGCCAC TTGGCAGTAC ATCAAGTGTG TCAATATGCCA 600
40 AGTACGCCCT CTATTGACGT CAATGACGGT AAATGGCCCG CCTGGCATTA TGCCCAGTAC 660
ATGACCTTAT GGGACTTTCC TACTTGGCAG TACATCTACG TATTAGTCAT CGCTATTACC 720
ATGGTGATGC GGTTTGGCA GTACATCAAT GGGCGTGGAT AGCGGTTGCA CTCACGGGGA 780
45 TTTCGAAGTC TCCACCCCAT TGACGTCAAT GGGAGTTGTG TTTGGCACCAG AAATCAACGG 840
GACTTTCCAA ATGTGCTAA CAACTCCGCC CCATTGACGC AAATGGCGG TAGGCGTGTG 900
50 CGGTGGGAGG TCTATATAAG CAGAGCTGGG TACGTGAACC GTCAGATCGC CTGGAGACGC 960
CATCACAGAT CTCTCACCAT GAGGGTCCCC GCTCAGCTCC TGGGGCTCTT GCTGCTCTGG 1020
CTCCCAGGTG CACGATGTGA TGGTACCAAG GTGGAATCA AACGTACGGT GGCTGCACCA 1080
55 TCTGCTTCA TCTTCCGCC ATCTGATGAG CAGTGAATAT CTGGAACATGC CTCCTGTTGTG 1140
TGCCCTGCTGA ATAACATTCA TCCCAGAGAG GCCAAAGTAC AGTGGAAAGGT GGATAACGCC 1200
60 CTCCAATCGG GTAACCTCCA GGAGAGTGTC ACAGAGCAGG ACAGCAAGGA CAGCACCTAC 1260

	AGCCTCAGCA GCACCCGTGAC GCTGAGCAAA GCAGACTACG AGAAACACAA AGTCTACGCC	1320
	TGGGAAGTCA CCCATCAGGG CCTGAGCTCG CCCGTCACAA AGAGCTTCAA CAGGGGAGAG	1380
5	TGTTGAATTG AGATCCGTTA ACGGTTACCA ACTACCTAGA CTGGATTCTGT GACAACATGC	1440
	GGCCGTGATA TCTACGTATG ATCAGCCTCG ACTGTGCCTT CTAGTGTGCA GCCATCTGTT	1500
	GTTCGCCCCCT CCCCGTGCCTTCCCTTGACCTTGGAGTC CCACTCCCAC TGTCTTTCC	1560
10	TAATAAAATG AGGAAATTGCA ATCGCATTGTG CTGAGTAGGT GTCATTCTAT TCTGGGGGGT	1620
	GGGGTGGGGC AGGACAGCAA GGGGGAGGAT TGGGAAGACA ATAGCAGGCA TGCTGGGGAT	1680
15	GCGGTGGGCT CTATGGAACC AGCTGGGGCT CGACAGCTAT GCCAAGTACG CCCCCATTG	1740
	ACGTCATGAA CGGTAATGG CCCGCGTGGC ATTATGCCA GTACATGACC TTATGGACT	1800
20	TTCTCTACTTG CGACTACATC TACGTATTAG TCATCGCTAT TACCATGGTG ATGCGGGTTT	1860
	GGCAGTACAT CAATGGGGCT GGATAGCGGT TTGACTCAGG GGGATTCCAA AGTCTCCACC	1920
	CCATTGACGT CAATGGGGAT TTGTTTTGGC ACCAAAATCA ACGGGACTTT CAAAATGTC	1980
25	GTAACAACTC CGCCCCATG ACGCAAATGG GCGGTAGGCG TGACGGGTG GAGGTCTATA	2040
	TAAGCAGAGC TGGGTACGTC CTCACATTCA GTGATCAGCA CTGAAACACAG ACCGGTCCGAC	2100
	ATGGGGTTGGC GCCTCATCTT GCTCTCCCTT GTCGCTGTTG CTACGGGTGT CGCTAGCACC	2160
30	AAGGGCCAT CGGTCTTCCC CCTGGCACCC TCCTCCAAGA GCACCTCTGG GGGCACAGCG	2220
	GCCTGGGCT GCCTGGTCAA GGACTACTTC CCCGAACCGG TGACGGTGTG TGGAACATCA	2280
35	GGCGCCCTGA CCACACCTTC CGGGCTGTCC TACAGTCTC AGGACTCTAC	2340
	TCCCTCAGCA CGTGGGTGAC CGTGGCCCTCC AGCAGCTTGG GCACCCAGAC CTACATCTGC	2400
40	AACGTGAATC ACAAGCCCG CAACACCAAG GTGGACAAGA AAGCAGAGCC CAAATCTTGT	2460
	GACAAAACCTC ACACATGCC ACCGTGCCA GCACCTGAAC TCCTGGGGGG ACCGGTCA	2520
	TTCTCTTCC CCCCCAAACCAAGGACACC CTCATGATCT CCCGGACCCC TGAGGTCA	2580
45	TGGGTGGTGG TGGACGTGAG CCACGAAGAC CCTGAGGTCA AGTCTCACTG GTACGGTGCAC	2640
	GGCGTGGAGG TGCTATATGC CAAGACAAAG CGCGGGGAGG AGCAGTACAA CAGCACCTAC	2700
50	CGTGTGGTCA CGCTCCCTCAC CGTCCCTGCAC CAGGACTGGC TGAATGGCAA GGAGTACAAG	2760
	TGCAAGGTCT CCAACAAAGC CCTCCCGAGCC CCCATCGAGA AAACCATCTC CAAAGCCAA	2820
	GGGCAGCCCC GAGAACCCACA GGTGTACACC CTGCCCCCAT CCCGGGATGA GCTGACCAAG	2880
55	AACCAAGGTCA GCCCTGACCTG CCTGGTCAAAGGCTCTATC CCAGCGACAT CGCCGTGGAG	2940
	TGGGAGAGCA ATGGGCAGCC GGAGAACAC TACAAGACCA CGCCCTCCGT GCTGGACTCC	3000
60	GACGGCTCTT CTTCTCTCTA CAGCAAGCTC ACCGTGGACCA AGAGCAGGTG GCAGCAGGG	3060
	AACGTCTTCT CAGCTCCGT GATGCATGAG GCTCTGCACCA ACCACTACAC GCAGAAGAGC	3120
	CTCTCCCTGT CTCCGGTAA ATGAGGATCC GTTAAACGGTT ACCAACTACAC TAGACTGGAT	3180

	TCGTGACAAC	ATGCGGCCGT	GATATCTACG	TATGATCAGC	CTCGACTGTG	CCTTCTAGTT	3240
5	GCCAGCCATC	TGTTGTTGC	CCCTCCCCCG	TGCCTCCCT	GACCCCTGGAA	GGTGCACACTC	3300
	CCACTGTCCT	TTCTTAATAA	AATGAGGAAA	TTGCATCGCA	TTGTCTGAGT	AGGTGTCAATT	3360
	GTAGAGGAGA	GGATGCTGG	GGATGCGGTG	GGCTCTATGG	AACCAGCTGG	GGCTCGACAG	3380
10	CCCGATCCCC	AGCTTGCTT	CTCAATTCT	TATTTGCATA	ATGAGAAAAA	AAGGAAAATT	3480
	AATTTTAAC	CCATTTCAGT	AGTTGATTGA	GCAAAATCGT	TCCCAAAAG	GATGCTTCTAG	3600
	AGACAGTGT	CTCTGCACAG	ATAAGGACAA	ACATTTATTCA	GAGGGAGTAC	CCAGAGCTGA	3660
	GACTCTAACG	CCAGTGAGTG	GCACAGCATT	CTAGGGAGAA	ATATGCTTGT	CATCACCGAA	3720
15	GCCTGATTCC	GTAGAGGCCAC	ACCTTGGTAA	GGGCAATCT	GTCACACAG	GATAGAGAGG	3780
	GCAGGGGCCA	GGGCAAGCAG	TATAAGGTGA	GGTAGGATCA	GTTGCTCTC	ACATTTGCTT	3840
20	CTGACATAGT	TGTGTTGGGA	GCTTGGATAG	CTTGGCACAGC	TCAGGGCTGC	GATTTGCCGC	3900
	CAAATTCGAC	GGCAATCCCTA	GGCTGAAGGC	TGGTAGGATT	TTATCCCCGC	TGCCATCATG	3960
	GTTGACCAT	TGAACATGCAT	CGTCGCCGTG	TCCCAAAAATA	TGGGGATGG	CAAGAACCGA	4020
25	GACCTACCCCT	GGCCCTCGCT	CAGGAACAGG	TTCAACTACT	TCCAAAGAAT	GACCACAAACC	4080
	TCTTCAGTGG	AAGGAAACAA	GAATCTGGTG	ATTATGGTA	GGAAAACCTG	GTTCTCATT	4140
	CCTGAGAAGA	ATCGACCTTT	AAAGGACAGA	ATTAATATAG	TTCTCAGTAG	AGAACTCAAA	4200
30	GAACCAACAC	GAGGAGCTA	TTTCTTGCC	AAAAGTTTG	ATGATGCTT	AAAGACTTATT	4260
	GAACAAACCGG	AATTGGCAAG	TAAAGTAGAC	ATGGTTGGA	TAGTCGGAGG	CAGTTCTGTT	4320
35	TACCAAGGAAG	CCATGAATCA	ACCAGGCCAC	CTTAGACTCT	TTGTGACAAG	GATCATGCAG	4380
	GAATTGAAA	GTGACACGTT	TTTCCCGAA	ATTGATTGG	GGAAATATAA	ACTTCTCCCA	4440
	GAATACCCAG	GGCTCTCTC	TGAGGTCCAG	GAGGAAAAAG	GCATCAAGTA	TAAGTTGAA	4500
40	GTCTACGGAGA	AGAAAAGACTA	ACAGGAAGAT	GCTTCAAGT	TCTCTGCTCC	CCTCCTAAAG	4560
	CTATGCATT	TTATAAGACC	ATGGGACTTT	TGCTGGCTTT	AGATCAGCCT	CGACTGTGCC	4620
45	TTCTAGTTGC	CAGCCATCTG	TGTTTGGCC	CTCCCCCGTG	CCTTCCTTGA	CCCTGGAAAGG	4680
	TGCCACTCCC	ACTGTCTTT	CCTAATAAAAA	TGAGGAAATT	GCATCGCATT	GTCTGAGTAG	4740
50	GTGTCAATTCT	ATTCTGGGG	GTGGGGTGGG	GCAGGACAGC	AAGGGGGAGG	ATTGGGAAGA	4800
	CAATAGCAGG	CATGCTGGGG	ATGCGGTGGG	CTCTATGGAA	CCAGCTGGGG	CTCGAGCTAC	4860
55	TAGCTTTGCT	TCTCAATTTC	TTATTGCTA	AATGAGAAAA	AAAGGAAAAT	TAATTTAAC	4920
60	ACCAATTCA	TAGTTGATTG	AGCAAATGCC	TTGCCAAAAA	GGATGCTTAA	GAGACAGTGT	4980
	TCTCTGCACA	GATAAGGACA	AACATTATTCA	AGAGGGAGTA	CCAGAGCTG	AGACTCCTAA	5040

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5	AGGGCAGAGC ATATAAGGTG AGTAGGATC AGTGTGCTCT CACATTGCT TCTGACATAG	5220
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10	CTCTGATGCC GCGGTGTTCC GGCTGTCAGC GCAGGGGCC CGGGTTCTTT TTGTCAGAC	5400
	CGACCTGTCG GTGCCCCCTGA ATGAACTGCA GGACGGAGCA GCGCGGCTAT CGTGGCTGGC	5460
15	CACGACGGGC GTTCCTTGCAG CAGCTGTGCT CGACGTTGTC ACTGAAGCGG GAAGGGACTG	5520
	GCTGCTATTG GCGGAAGTGC CGGGGCAGGA TCTCCTGTC TCTCACCTTG CTCCCTGCCGA	5580
20	GAAAGTATCC ATCATGGCTG ATGCAATGCG GCGGCTGCAT ACGCTTGTATC CGGGTACCTG	5640
	CCCATTGCGAC CACCAAGCGA AACATCGAT CGAGCGAGCA CGTACTCGGA TTGAAAGCCGG	5700
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25	CGCCAGGCTC AAGGCGGCCA TGCCCCAGCG CGAGGATCTC GTCTGACCC ATGGCGATGC	5820
	CTGCTTGGCC AATATCATGG TGGAAAATGG CGCGTTTCTT GGATTGATCG ACTGTGGCCG	5880
30	GCTGGGTGTCG CGGGACCGCT ATCAGGACAT AGCGTTGGCT ACCCGTGTATA TTGCTGAAGA	5940
	GCTTGGGGC GAATGGGTG ACCGCTTCTC CTGCTTGTAC CGTATCGCCG CTCCCGATTG	6000
	GCACCGCATC GCCTTCTATC GCCTTCTGA CGAGTTCTTC TGACGGGAC TCTGGGGTTC	6060
35	GAAATGACCG ACCAAGCGAC GCCCCAACCTG CCATCACGAG ATTCGATTC CACCGCCGCC	6120
	TTCTATGAAA GGTGGGCTT CGGAATCGTT TTCCGGGACG CGCGCTGGAT GATCCTCCAG	6180
	CGCGGGGATC TCATGCTGGA GTTCTCGCC CACCCCAACT TGTTTATTGC AGCTTATAAT	6240
40	GTTTACAAAT AAAGCAATAG CATCACAAAT TTCAACAAATA AAGCATTTTT TTCACTGCTAT	6300
	TCTAGTTGTCG GTTGTGCTAA ACTCATCAAT CTATCTTATC ATGCTGTTGAT CGCGGGCCCG	6360
45	ATCCCGTCGA GAGCTTGGCG TAATCATGGT CATAGCTGTT TCTGTGTGA AATTGTTATC	6420
	CGCTCACAAAT TCCACACAAAC ATACGAGCGG GAAGCATAAA GTGTAAGCC TGGGTGCGCT	6480
	AATGAGTGTG CTAACTCACA TTAATTGCGT TGCGCTCACT GCGCGCTTTG CAGTCGGGAA	6540
50	ACCTGTCGTG CGAGCTGCAT TAATGAATCG GCCAACCGCG GGGGAGAGGC GTTGTGGTA	6600
	TTGGGCCTC TTCCGCTTCC TCGCTCACTG ACTCGCTGCG CTGGTGTGTT CGGCTGCCG	6660
55	GAGCGGTATC AGCTCACTCA AAGGGCGTAA TACGGTTATC CACAGAATCA GGGGATAACG	6720
	CAGGAAAGAA CATGTGAGCA AAAGGCCAGC AAAAGGCCAG GAACCGTAA AAGGCCGCGT	6780
60	TGCTGGCGTT TTCCATAGG CTCCGCCCTT CTGACGAGCA TCAACAAAT CGACGCTCAA	6840
	GTCAAGAGGTG CGGAAACCCG ACAGGACTAT AAAGATACCA CGCGTTTCCC CCTGGAAGCT	6900
	CCCTCGTGCCTCTCGT CCGACCCCTGC CGCTTACCGG ATACCTGTCC GCCTTCTCC	6960

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5	TCGGTTCGCTC CAAGCTGGGC TGTGTGCACG AACCCCCCGT TCAGCCGAC CGCTGCGCCT	7080
	TATCCGGTAA CTATCGCTT GAGTCCAACC CGGTAAGACA CGACTTATCG CCACCTGGCAG	7140
	CAGCCCACTGG TAACACAGGTT ACCACAGGGG CGGTATGTAGG CGGTGTACAGGTTCTCA	7200
10	AGTGGTGGCC TAATACAGGC TACACTAGAA GGACAGTATT TGGTATCTGC GCTCTGCTGA	7260
	AGCCAGTTAC CTTCGGAAAA AGAGTTGGTA GCTCTTGATC CGGCAAAACAA ACCACCGCTG	7320
	GTAGCGGTGG TTTTTTTGTT TGCAAGCAGC AGATTACCGC CAGAAAAAAA GGATCTCAAG	7380
15	AAGATCCTTT GATCTTTCT ACGGGGTCTG ACGCTCAGTG GAACGAAAAC TCACGTTAAG	7440
	GGATTTGGT CATGAGATTAA TCAAAAAGGA TCTTCACCTA GATCCCTTTA AATTAAAAAT	7500
20	GAAGTTTAA ATCAATCTAA AGTATATATG AGTAAACTTG GTCTGACAGT TACCAATGCT	7560
	TAATCACTGA GGCACCTATC TCAGCGATCT GTCTATTCTG TTTCATCCATA GTTGCCTGAC	7620
	TCCCCGTCGT GTAGATAACT ACGATACGGG AGGGCTTACC ATCTGGCCCC AGTGCTGCAA	7680
25	TGATACCCCG AGACCCACCG TCACCGGCTC CAGATTATAC AGCAATAAAC CAGCCAGCGG	7740
	GAAGGGCCGA GCGCAGAAGT GGTCTCTGCAA CTTTATCCGC CTCCATCCAG TCTATTAAATT	7800
30	GTTCGGGGGA AGCTAGAGTA AGTAGTTCGC CAGTTAATAG TTTGGCCTAAC GTTGGTGGCA	7860
	TTGCTACAGG CATCGTGGTG TCACGCTCGT CGTTGGTAT GGCTTCATTC AGCTCCGGTT	7920
	CCCAACGATC AAGGGCAGATT ACATGATCCC CCATGTTGTG CAAAAAAAGCG GTTACGCTCCT	7980
35	TCGGTCTCTC GATCGTTGTC AGAAGTAAGT TGGCCGAGT GTTATCACTC ATGGTTATGG	8040
	CAGCACTGCA TAATTCTCTT ACTGTCATGC CATCCGTAAG ATGTTTTCT GTGACTGGTG	8100
40	AGTACTCAAC CAGTCATTC TGAGAAATAGT GSTATGGGGG ACCGAGTTGC TCTTGGCCCC	8160
	CGTCAATACG GGATAATACC GCGCCACATA GCAGAACTTT AAAAGTGCTC ATCATTGGAA	8220
	AACGTTCTTC GGGGCAGAA CTCTCAAGGA TCTTACCGCT GTTGAGATCC AGTTCGATGT	8280
45	AACCCACTCG TGACACCAAC TGATCTTCAG CATTCTTAC TTTCACCCAGC GTTCTGGGT	8340
	GAGCAAAAC AGGAAGGCAA AATGCCGCAA AAAAGGGAAT AAGGGCAGCA CGGAAATGTT	8400
50	GAATACTCAT ACTCTTCCTT TTTCATATT ATTGAAGCAT TTATCAGGGT TATTGTCCTCA	8460
	TGAGCGGATA CATATTTGAA TGTATTAGA AAAATAAACAA AATAGGGGTT CGGCCACAT	8520
55	TTCCCCGAAA AGTGCCACCT	8540

(3) INFORMATION FOR SEQ ID NO: 2:

60 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9209 bases

(B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: circular

5	(ii)	MOLECULE TYPE: DNA (genomic)	
10	(iii)	HYPOTHETICAL: yes	
10	(iv)	ANTI-SENSE: no	
10	(ix)	SEQUENCE DESCRIPTION: SEQ ID NO: 2:	
15	GACGTCGCGG CCGCTCTAGG CCTCCAAAAA AGCCTCTCA CTACTCTGG AATAGCTAG	60	
15	AGGCCGAGGC GGCCTCGGCC TCTGCATAAA TAAAAAAAT TAGTCAGCCA TGATGGGC	120	
20	GGAGAATGGG CGGAACCTGGG CGGAGCTTAGG GCGGGATGG CGCGAGTTAG GGGCGGGACT	180	
20	ATGGTTGCTG ACTAATTGAG ATGCATGCTT TGCACTTTC TGCCCTGCTGG GGAGCCTGGG	240	
25	GACTTTCCAC ACCTGGTTC TGACTAATTG AGATGCATGC TTGCACTACT TCTGCCTGCT	300	
25	GGGGAGCCTG GGGACTTTTC ACACCCCTAAC TGACACACAT TCCACAGAAAT TAATTCCCT	360	
30	AGTTATTAAT AGTAATCAAT TACGGGGTCA TTAGTTCTATA GCCCCATATAT GGAGTTCCGC	420	
30	GTTCACATAAC TTACGGTAAA TGGCCCGCCT GGCTGACCGC CCAACGACCC CGCCCATTTG	480	
35	ACGTCAATAA TGACGTATGT TCCCATAGTA ACGCCAATAG GGACTTTCCA TTGACGTCAA	540	
35	TGGGTGACT ATTTACGGTA AACTGCCAC TTGGCAGTAC ATCAAGTGTAA TCATATGCCA	600	
40	AGTACGCCCTT CTATTGACGT CAATGACGGT AAATGGCCCG CCTGGCATTA TGCCCATGTC	660	
40	ATGACCTTAT GGGACTTTTC TACTTGGCAG TACATCTAGG TATTAGTCAT CGCTATTAC	720	
45	ATGGTGATGC GGTTTTGGCA GTACATCAAT GGGCGTGGAT AGCGGTTTGA CTCACGGGA	780	
45	TTTCCAAGTC TCCACCCCCAT TGACCTCAAT GGGAGTTTGT TTTGGCACC AATCACCG	840	
50	GACTTTCCAA AATGTCGTA CAACCTCCGCC CCATTGACGC AAATGGCGG TAGGCCTGTA	900	
50	CGGTGGGAGG TCTATATAAG CAGAGCTGGG TACGTGAACCC GTCAAGTCGC CTGGAGACGC	960	
55	CATCACAGAT CTCTCACTAT GGATTTTCAG GTGCAGATTAA TCAGCTTCTCT GCTAATCAGT	1020	
55	GCTTCAGTC TAATGTCAG AGGACAAATT GTTCTCTCCC AGTCTCCAGC AATCTGTCT	1080	
60	GCATCTCCAG GGGAGAAGGT CACAATGACT TGCAAGGGCA GCTCAAGTGT AAGTTACATC	1140	
60	CACTGGTCCC AGCAGAAGGCC AGGATCCCTCC CCCAAACCCCT GGATTTATGC CACATCCAAC	1200	
65	CTGGCTTCTG GAGTCCCTGT TCGCTTCAGT GGCAGTGGGT CTGGGACTTC TTACTCTCTC	1260	
65	ACAAATCAGCA GAGTGGAGGC TGAAGATGCT GCCACTATTACTGCGACCA GTGGACTAGT	1320	
70	AACCCACCCA CGTTCGGAGG CGGGACCAAG CTGGAAATCA AACCTACGGT GCCTGCACCA	1380	
70	TCTGTCTTCA TCTTCCCGCC ATCTGATGAG CAGTTGAAAT CTGGAACTGC CTCTGTGTG	1440	

	TGCCCTGCTGA	ATAACTTCTA	TCCCATGAGAG	GCCAAAGTAC	AGTGGAAAGGT	GGATAACGCC	1500
	CTCCAATCGG	GTAACTCCCC	GGAGAGTGTG	ACAGAGCAGG	ACAGCAAGGA	CAGCACCTAC	1560
5	AGCCTCAGCA	GCACCCCTGAC	GCTGAGCAAA	GCAGACTACG	AGAACACAA	AGTCTACGCC	1620
	TGCGAAGTCA	CCCATCAGGG	CCTGAGCTCG	CCCGTCACAA	AGAGCTTCAA	CAGGGGAGAG	1680
10	TGTTGAATTG	AGATCCCGTTA	ACGGTTACCA	ACTACCTAGA	CTGGATTCTG	GACAACATGC	1740
	GGCCGTGATA	TCTACGTATG	ATCACGCTCG	ACTGTGCCTT	CTAGTTGCCA	CCCATCTGTT	1800
	GTTCGCCCCCT	CCCCCGTGCC	TTCCCTTGACC	CTGGAAGGTG	CCACTCCAC	TGTCCTTCC	1860
15	TAATAAAATG	AGGAAATTGC	ATCCGATTGT	CTGAGTAGGT	GTCATTCTAT	TCTGGGGGGT	1920
	GGGGTGGGGC	AGGACACAA	GGGGGAGGAT	TGGGAAGACA	ATAGCAGGA	TGCTGGGGAT	1980
20	GCGGTGGGCT	CTATGGAAAC	AGCTGGGCT	CGACAGCTAT	GCCAAGTAGC	CCCCCTATTG	2040
	ACGTCAATGA	CGGTAATGG	CCCCCTGGC	ATTATGCCCA	GTACATGACC	TTATGGGACT	2100
	TTCTTACTTG	GCAGTACATC	TACGTATTAG	TCATCGCTAT	TACCATGGTG	ATGCGGTTT	2160
25	GCGAGTACAT	CAATGGGGT	GGATAGGGT	TTGACTCAGC	GGGATTCCA	AGTCCTCACC	2220
	CCATTGACGT	CAATGGGGAT	TTGGTTTGGC	ACCAAAATCA	ACGGGACTTT	CCAAAATGTC	2280
30	GTAACAACTC	CGCCCCATTG	ACGCAAATGG	GCGGTAGCG	TGTACCGTGG	GAGGTCTATA	2340
	TAAGCAGAGC	TGGGTACGTC	CTCACATTCA	GTGATCAGCA	CTGAACACAG	ACCCGTGCAC	2400
	ATGGGTTGGA	GCCTCATCTT	GCTCTTCCCT	GTGCGTGTG	CTACGCGTGT	CCTGTCCCCAG	2460
35	GTACAACCTG	AGCAGCCTGG	GGCTGAGCTG	GTGAAGCCTG	GGGCCTCAGT	GAAGATGTC	2520
	TGCAAGGCTT	CTGGCTACAC	ATTTACCACT	TACAATATGC	ACTGGTAAA	ACAGACACCT	2580
	GTCGCGGGCC	TGGAATGGAT	TGGACTTATT	TATCCCGAA	ATGTTGATAC	TTCTTACAAAT	2640
40	CAGAAGTCA	AAAGCAAGGC	CACATTGACT	GCAGACAAAT	CCTCCAGCAC	AGCCTACATG	2700
	CAGCTCAGCA	GCCTGACATC	TGAGGACTCT	GGGGTCTATT	ACTGTGCAAG	ATCGACTTAC	2760
45	TACGGCGGTG	ACTGGTACTT	CAATGTCCTG	GGCGCAGGG	CCACGGTCAC	CGTCTCTGCA	2820
	GCTAGCACCA	AGGGCCCATC	GGTCTTCCCC	CTGGCACCC	CCTCCAAGAC	CACCTCTGGG	2880
	GGCACAGCGG	CCCTGGGGCTG	CTGGTCAAG	GACTACTTCC	CCGAACCGGT	GACGGTGTGCG	2940
50	TGGAACTCAG	GCCTCCGTAC	CAGGGCGTG	CACACCTTCC	CGGCTGTCT	ACAGTCCTCA	3000
	GGACTCTACT	CCCTCAGCA	CGTGGTGACC	GTGCCCTCCA	GCAGCTTGGG	CACCCAGACC	3060
55	TACATCTGCA	ACGTGAATCA	CAAGCCCAGC	AAACACCAAGG	TGGACAAGAA	AGCAGAGCCC	3120
	AAATCTTG	ACAAAACCT	CAATGCCCA	CCGTGCCCCAG	CACCTGAACT	CCTGGGGGGA	3180
60	CCGTCACT	TCCTCTTCCC	CCCCAAACCC	AAGGACACCC	TCATGATCTC	CCGGACCCCT	3240
	GAGGTCACT	GCCTGGGTGGT	GGACGTGAGC	CACGAAGACC	CTGAGGTCAA	GTTCAACTGG	3300
	TACGTGGACG	GGCTGGAGGT	GCATAATGCC	AAGACAAAGC	CGCGGGAGGA	GCAGTACAAC	3360

	ACCACTGATT	GTGTGGTCAG	CGTCCTCACC	GTCCTGCACC	AGGACTGGCT	GAATGGCAAG	3420
5	GAGTACAAGT	GCAAGGTCTC	CAACAAAGCC	CTCCCAGCCC	CCATCGAGAA	AACCATCTCC	3480
	AAAGCCAAAG	GCGACCCCCG	AGAACACCACG	GTGTACACCC	TGCCCCCATC	CCGGGATGAG	3540
	CTGACCAAGA	ACCAAGCTCG	CTGACCTCG	CTGCTCAAAG	CTTCTCTATCC	CAGGGACATG	3600
10	GCCGTGGAGT	GGGAGAGCAA	TGGGCAGCCG	GAGAACACT	ACAAGACCAC	GCCTCCGTG	3660
	CTGGACTCCG	ACGGCTCTT	CTTCCCTAC	AGCAAGCTCA	CCGTGGACAA	GAGCAGGTGG	3720
	CAGCAGGGGA	ACGTCTCTC	ATGCTCCGTG	ATGATGAGG	CTCTGCACAA	CCACTACACG	3780
15	CAGAAGAGCC	TCTCCCTGTC	TCCGGTAA	TGAGGATCGG	TTAACGGTTA	CCAACTACCT	3840
	AGACTGGATT	CGTGACAAAC	TGCGGCCGTG	ATATCTACGT	ATGATCACCC	TCGACTGTGC	3900
20	CTTCTAGTTG	CGACCCATCT	GTTGTTGC	CCTCCCCGT	GCCTTCCTTG	ACCCCTGGAA	3960
	GTGCCCCATCC	CACTGCTCTT	TCCTAATAAA	ATGAGGAAT	TGCATCGCAT	TGTCTGAGTA	4020
25	GGTGTCAATTC	TATTCCTGGG	GGTGGGGTGG	GGCAGGACAG	CAAGGGGGAG	GATTGGGAAG	4080
	ACAATAGCG	CGATGCTGGG	GATGGGGTGG	GCTCTATGGA	ACCACTGGG	GCTCGACAGC	4140
	GCTGGATCTC	CCGATCCCCA	GCTTGCTTC	TCAATTCTT	ATTTGCTATAA	TGAGAAAAAA	4200
30	AGGAAAATTAA	ATTTAACAC	CAATTCACTA	GTTGATTGAG	CAAATGCCTT	GCCAAAAAAGG	4260
	ATGCTTTAGA	GACAGTGTTC	TCTGCACAGA	TAAGGACAAA	CATTATTCTAG	AGGGAGTAC	4320
	CAGAGCTGAG	ACTCTAACG	CACTGAGTGG	CACAGCATT	TAGGGAGAAA	TATGCTTGTC	4380
35	ATCACCGAAG	CCTGATTCCG	TAGAGCCACA	CCTTGGTAAG	GGCCAATCTG	CTCACACAGG	4440
	ATAGAGAGGG	CAGGAGCCAG	GGCAGAGCAT	ATAAGGTGAG	GTAGGATCTAG	TTGCTCCCTCA	4500
40	CATTGCTTC	TGACATAGTT	GTGTGGAG	CTTGGATAGC	TTGGACAGCT	CAGGGCTGCG	4560
	ATTTCGCGCC	AAACTTGACG	GCAATCTAG	CGTGAAGGCT	GGTAGGATTT	TATCCCCT	4620
45	GCCATCATGG	TCGACCATT	GAACTCATC	GTGCCCGTGT	CCCAAATAT	GGGGATTGGC	4680
	AAGAACGGG	ACCTACCCCTG	GCCTCCGCTC	AGGAACGAGT	TCAAGTACTT	CCAAAGAATG	4740
	ACCAACACT	CTTCAGTGG	AGGTAACAG	AACTGGTGA	TTATGGTAG	GAAAACCTGG	4800
50	TTCTCCATTG	CTGAGAAGAA	TCGACCTTTA	AAGGACAGAA	TAAATATAGT	TCTCAGTAGA	4860
	GAACCTAAAG	AACCACCAACG	AGGAGCTCAT	TTTCTGCCC	AAAGTTGGAA	TGATGCTTAA	4920
55	AGACTTATTG	AAACACCGGA	ATTGGCAAGT	AAAGTAGACA	TGGTTGGAT	AGTCGGAGGC	4980
	AGTTCTGTTT	ACCAAGAACG	CATGAATCAA	CCAGGGCACC	TTAGACTCTT	TGTGACAAGG	5040
	ATCATGCAAG	AATTGAAAG	TGACACGTTT	TTCCCGAGAA	TTGATTGGG	AAAATATAAA	5100
60	CTTCTCCCG	AATACCCAGG	CGTCTCTCT	GAGGTCAGG	AGGAAAAGG	CATCAAGTAT	5160
	AAAGTTGAAG	TCTACGAGAA	GAAAGACTAA	CAGGAAGATG	CTTTCAGTT	CTCTGCTCCC	5220

	CTCCTAAAGC TATGCATTT TATAAGACCA TGGGACTTT GCTGGCTTA GATCAGCCTC	5280
	GAATGTGCCT TCTAGTTGCC AGCCATCTGT TGTTGGCCCC TCCCCGTG CTTCTTGAC	5340
5	CCTGGAAGGT GCCACTCCA CTGCTCTTC CTAATAAAAT GAGGAAATTG CATCGCATTG	5400
	TCTGAGTAGG TGTCAATTCTA TTCTGGGGGG TGGGGTGGGG CAGGACAGCA AGGGGGAGGA	5460
	TTGGGAAGAC AATAGCAGGC ATGCTGGGA TGCGGTGGC TCTATGGAAC CAGCTGGGC	5520
10	TCGAGCTACT AGCTTGTCTT CTCATTCTC TATTTCATA ATGAGAAAAA AAGGAAATT	5580
	ATTTTAAAC CCAATTCACT AGTTGATTGA GCAAATTCGT TGCCAAAAG GATGCTTTAG	5640
15	AGACAGTGT CTCTGCACAG ATAAGGACAA ACATTATTCA GAGGGAGTAC CCAGAGCTGA	5700
	GACTCCTAAG CCAGTGAGTG GCACAGCATT CTAGGGAGAA ATATGCTTGT CATCACCGAA	5760
20	GCCTGATTCC GTAGAGGCCAC ACCTTGGTAA GGGCCAACTCT GCTCACACAG GATAGAGAGG	5820
	GCAGGGGCCA GGGCAGAGCA TATAAGGTGA GGTAGGATCA GTTGCTCTC ACATTGCTT	5880
	CTGACATAGT TGTGTTGGG GCTTGGATCG ATCCTCTATG GTTGAACAAG ATGGATTGCA	5940
25	CGCAGGTTCT CCGGGCGCTT GGGTGGAGAG GCTATTGGC TATGACTGGG CACAAACAGAC	6000
	AATCCGCTGC TCTGATGCC CGGTGTTCCG GCTGTCAGCG CAGGGGCCG CCGTTCTTT	6060
30	TGTCAGAACCC GACCTGTCGG GTGCCCTGAA TGAACTGCAG GACGAGGCAG CGCGGTATC	6120
	GTGGCTGGC ACACAGGGCG TTCCTTGCAG AGCTGTCGT GACGTTGCTA CTGAAGGGG	6180
	AAGGGACTGG CTGCTATTGG CGCGAAGTGC GGGGCAGGAT CTCTGTCT CTCACCTTGC	6240
35	TCCTGCCGAG AAAGTATCCA TCATGGCTGA TGCAATGCCG CGGCCGATA CGCTTGATCC	6300
	GGCTACCTGC CCATTGACCA ACCAAGCGAA ACATCGCATC GAGCGACAC GTACTCGGAT	6360
40	GGAAGCCGGT CTTGTCGATC AGGATGATCT GGACGAAGAG CATCAGGGC TCGGCCAGC	6420
	CGAACATGTC GCCAGGCTCA AGGCCGCAT GCGGCAGCG GAGGATCTCG TCGTGACCCA	6480
	TGGCGATGCC TGCTTGCAGA ATATCATGGT GGAAATGGC CGCTTTCTG GATTCATCGA	6540
45	CTGTGGCCGG CTGGGTGTGG CGGACCGTA TCAGGACATA GCGTTGGCTA CCCGTGATAT	6600
	TGCTGAAGAG CTGGCCGGG AATGGGCTGA CGCTCTTCTC GTGCTTTACG GTATGCCCG	6660
	TCCCGATTCTG CAGCCCATCG CCTTCTATCG CCTTCTTGAC GAGTTCTCT GAGCGGGACT	6720
50	CTGGGGTTCTG AAATGACCGA CCAAGCGACG CCCAACCTGC CATCACGAGA TTTCGATTCC	6780
	ACCGCCGCT TCTATGAAAG GTTGGGCTTC GGAATCGTT TCCGGGACGC CGGCTGGATG	6840
55	ATCCTCCAGC GCGGGGATCT CATGCTGGAG TTCTGGCCC ACCCAAACCT GTTTATTGCA	6900
	GCTTATAATG GTTACAATAA AAGCAATAGC ATCACAAATT TCACAAATAA AGCATTCTT	6960
60	TCACGTGATT CTAGTTGTGG TTGTCTTAA CTCATCAAC TATCTTATCA TGTCGGATC	7020
	GGGGCCGCGA TCCCGTCGAG AGCTTGGCGT AATCATGGTC ATAGCTGGTT CCTGTGTGAA	7080
	ATTGTTATCC GTCACAAATT CCACACAAACA TACGAGCCGG AAGCATAAAG TGAAAGCCT	7140

5	GGGGTGCCTA ATGAGTGAGC TAACTCACAT TAATTCGTT GCGCTCACTG CCCGCTTCC AGTCGGAAA CCTCTCGTGC CAGCTGCATT AATGAATCGG CCAACGCGG GGGAGAGCG GTTTCCGTAT TGGCCGCTCT TCCGCTTCCT CGCTCACTGA CTCGTGCCTC TCGTGCCTC GGCTGCAGCG AGCGCTATCA GCTCACTCAA AGCGGTTAAT CGCGTTATCC ACAGAACTCG	7200 7260 7320 7380
10	GGGATAACGC AGGAAGAAC ATGTGAGCAA AAGGCCAGCA AAAGGCCAGG AACCGTAAAA AGGCCGCGTT GCTGGCGTTT TTCCATAGGC TCCGCCCCC TGACGAGCAT CACAAAATC GACGCTCAAG TCAGAGGTGG CGAACCCGA CAGGACTATA AAGATACCA GCGTTCCCC CTGGAAGCTC CCTCGTGCCTC TCTCTGTTC CGACCCGTGC GCTTACCGGA TACCTGTCCG CCTTCTCCC TTGGGAAGC GTGGCGCTTT CTCAATGCTC ACGCTGTAGG TATCTCAGTT	7440 7500 7560 7620 7680
15	CGGTTGAGGT CGTTCGCTC AAGCTGGCT GTGTGACAGA ACCCCCCGTT CAGCCCCGACC GCTGCGCTT ATCCGGTAAC TATCGTCTTG AGTCCAACCC GGTAAAGACAC GACTTATCGC CACTGGCAGC AGCCACTGGT AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG AGTTCTTGAAT GTGGTGGCT AACTACGGCT AACTAGAAAG GACAGTATTT GGTATCTGCG	7740 7800 7860 7920
20	CTCTGCTGAA GCCAGTTAAC TTCCGGAAAA GACTGGTAG CTCTTGATCC GGCAAAACAAA CCACCGCTGG TAGCGGTGGT TTTTTGTTT GCAAGCAGCA GATTACCGCG AGAAAAAAAG GATCTCAAGA AGATCCTTTG ATCTTTCTA CGGGGCTGTA CGCTCAGTGG AACGAAAACCT	7980 8040 8100
25	CACCGTTAAGG GATTTGGTC ATGAGATTAT CAAAAGGAT CTTCACCTAG ATCCCTTTAA ATTAAAAATG AAGTTTTAAA TCAATCTAA GTATATATGA GTAAACCTGG TCTGACAGTT ACCAATGCTT ANTCACTGAG GCACCTATCT CAGCGATCTG TCTATTTCTG TCACTCCATAG	8160 8220 8280
30	TTGCTGACT CCCCGTCGTG TAGATAACTA CGATAACGGG GGGCTTACCA TCTGGCCCCA GTGCTGCAAT GATAACCGGA GACCCACGCT CACCGGCTCC AGATTATCA GCAATAAAC AGCCAGCCGG AAGGGCCGGAG CGCAGAAGTG GTCCGTCAAC TTTATCCGCC TCCATCCAGT	8340 8400 8460
35	CTATTAATTG TTGCGGGAA GCTAGAGTAA GTAGTTGCCT AGTTAATAGT TTGCGCAACG TTGTTGCCAT TGCTACAGGC ATCGTGGTGT CACGCTCGTC GTTGGTATG GCTCTATTCA GCTCCGGTTC CCAACGATCA AGGGCAGTTA CATGATCCCC CATGTTGTGC AAAAAAGCGG	8520 8580 8640
40	TTAGCTCCTT CGGTCTCCG ATCGTTGTCA GAAGTAAGTT GGCGCAGTG TTATCACTCA TGGTTATGGC AGCACTGCAT ATTCTCTTA CTGTCATGCC ATCCGTAAAGA TCCCTTTCTG TGACTGGTGA GTACTCAACC AAGTCATTCT GAGAATAGTG TATGCGCGA CCGACTTGCT	8700 8760 8820
45	CTTGGCCGGC GTCAATAACGG GATAATAACCG CGCCACATAG CAGAACTTTA AAAGTGTCA TCATTGGAAA ACCTCTTCG GGGCAGAAC TCTCAAGGAT CTTACCGCTG TTGAGATCCA	8880 8940
50	GTTCGATGTA ACCCACTCGT GCACCCAAGT GATCTTCAGC ATCTTTACT TTCACCGCG	9000
55		
60		

TTCTGGGTG AGCAAAACA GGAAGGCAAA ATGCCGCAA AAAGGGAATA AGGGCGACAC 9060
GGAAATGTTG AATACTCATA CTCTTCCTTT TTCAATATTA TTGAAAGCATT TATCAGGGTT 9120
5 ATGTCTCAT GAGCGGATAC ATATTGAAAT GTATTAGAA AAATAACAA ATAGGGGTTC 9180
CGCGCACATT TCCCCGAAAA GTGCCACCT 9209

10 (4) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

15 (A) LENGTH: 54 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

20 (ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: yes

(iv) ANTI-SENSE: no

25 (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

5' ATC ACA GAT CTC TCA CCA TGG ATT TTC AGG TBC AGA TTA TCA GCT 52
TC 3' 2

30 (5) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 30 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

40 (ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: yes

(iv) ANTI-SENSE: yes

45 (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

50 5' TGC AGC ATC CGT ACG TTT GAT TTC CAG CTT 3' 30

(6) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

5 (A) LENGTH: 384 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

10 (ii) MOLECULE TYPE: DNA (genomic)
(iii) HYPOTHETICAL: yes
(iv) ANTI-SENSE: no
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

15 ATG GAT TTT CAG GTG CAG ATT ATC AGC TTC CTG CTA ATC AGT GCT TCA GTC 51
ATA ATG TCC AGA GGG CAA ATT GTT CTC TCC CAG TCT CCA GCA ATC CTG TCT 102
GCA TCT CCA GGG GAG AAG GTC ACA ATG ACT TGC AGG GCC AGC TCA AGT GTA 153
20 AGT TAC ATC CAC TGG TTC CAG CAG AAG CCA GGA TCC TCC CCC AAA CCC TGG 204
ATT TAT GCC ACA TCC AAC CTG GCT TCT GGA GTC CCT GTT CGC TTC AGT GGC 255
25 AGT GGG TCT GGG ACT TCT TAC TCT CTC ACA ATC AGC AGA GTG GAG GCT GAA 306
GAT GCT GCC ACT TAT TAC TGC CAG CAG TGG ACT AGT AAC CCA CCC ACG TTC 357
GGA GGG GGG ACC AAG CTG GAA ATC AAA 384

30 (7) INFORMATION FOR SEQ ID NO: 6:

35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

40 (ii) MOLECULE TYPE: DNA (genomic)
(iii) HYPOTHETICAL: yes
45 (iv) ANTI-SENSE: no
(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

50 5' GCG GCT CCC ACG CGT GTC CTG TCC CAG 3'

27

(8) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:

5 (A) LENGTH: 29 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

10 (ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: yes

(iv) ANTI-SENSE: yes

15 (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

5' GGS TGT TGT GCT AGC TGM RGA GAC RGT GA 3' 29

(9) INFORMATION FOR SEQ ID NO: 8:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 420 bases
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

30 (ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: yes

(iv) ANTI-SENSE: no

35 (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

40	ATG GGT TGG AGC CTC ATC TTG CTC TTC CTT GTC GCT GTT GCT ACG CGT GTC	51
	CTG TCC CAG GTA CAA CTG CAG CAG CCT GGG GCT GAG CTG GTG AAG CCT GGG	102
	GCC TCA GTG AAG ATG TCC TGC AAG GCT TCT GGC TAC ACA TTT ACC AGT TAC	153
45	AAT ATG CAC TGG GTA AAA CAG ACA CCT GGT CGG GGC CTG GAA TGG ATT GGA	204
	GCT ATT TAT CCC GGA AAT GGT GAT ACT TCC TAC AAT CAG AAG TTC AAA GGC	255
	AAG GCC ACA TTG ACT GCA GAC AAA TCC TCC AGC ACA GCC TAC ATG CAG CTC	306
50	AGC AGC CTG ACA TCT GAG GAC TCT GCG GTC TAT TAC TGT GCA AGA TCG ACT	357
	TAC TAC GGC GGT GAC TGG TAC TTC AAT GTC TGG GGC GCA GGG ACC ACG GTC	408
	ACC GTC TCT GCA	420